preventing operation of said swinging door by said automatic door opener whenever said acoustic images received by any transducer differs by a predetermined value.

5. The method defined in claim **4**, including, the steps of causing said door to go through a predetermined number of operating cycles of opening and closing said door, and storing the acoustic images produced while causing said door to go through said predetermined number of operating cycles to constitute said stored images.

6. In an automatic door opener for swing type doors having an approach side and a swing side, means on said approach side for sensing the approach of a person to the door and producing a door open control signal in response thereto, door operator means connected to said door for opening said door upon said means for producing said door open control signal, the improvement comprising,

a first, second and third ultrasonic transducer for producing first, second and third acoustic images of a detection zone on said swingside of said door including acoustic images caused by intratransducer reflections, said second ultrasonic transducer being centrally located to project an ultrasonic beam in the central area of said swingside,

means for causing said automatic door opener to go through a predetermined number of operating cycles,

means for storing said acoustic images produced during said predetermined number of operating cycles to develop a plurality of safe acoustic images for said swingside,

subsequently producing fourth, fifth and sixth acoustic images at said first, second and third ultrasonic transducer,

means for comparing the respective stored acoustic images with the acoustic images produced on subsequent automatic door openings to detect the entrance of an object in said detection zone and produce a door inhibit signal when said means for comparing detects the presence of an object in said detection zone.

7. The invention defined in claim **6** wherein each said acoustic image is in digital form and including,

microprocessor means for sampling each digital acoustic image to produce a series of binary bits over a predetermined time period to constitute a characteristic number of each said acoustic images, and

said means for comparing the characteristic number of said stored acoustic images with the characteristic number of said fourth, fifth and sixth acoustic images, respectively, and producing a door inhibit signal when there is a deviation in said characteristic numbers above a predetermined level.

8. The automatic door opener defined in claim **6** wherein each said ultrasonic transducer at each side of said door includes a planar narrow beam transducer having an acoustic axis normal to the plane thereof,

a beam transformer, said beam transformer comprising a multifaceted conical reflecting surface in the near field of said planar narrow beam transducer and defined by the projection of said transducer upon a pair of contiguous surfaces defined by the revolution of a pair of intersecting straight lines about an axis parallel to and offset from said acoustic axis a selected distance, to reflect and expand said beam a predetermined amount in a pair of predetermined directions.

9. The automatic door opener defined in claim **8** wherein said ultrasonic transducer in the center of said swingside includes a multifaceted beam transformer.

10. The automatic door opener defined in claim **6** wherein said second ultrasonic transducer has a shorter range than said first and third transducers.

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